

DEPARTMENT OF BIOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
CAMBRIDGE 39, MASSACHUSETTS

February 20, 1961

Dr. Jacques Monod  
Institut Pasteur  
25, Rue du Dr. Roux  
Paris XV, France

Dear Jacques,

Your manuscript, which was avidly read, prompts me to write about several things. In the first place, I expect to stop in Paris for two or three days at the beginning of April, with Zella, on our way back from Israel. Would the dates of April 3-4-5 be convenient for a visit? At that time I would like also to make some preliminary arrangements for spending part of the academic year 1962-63 at the Pasteur Institute.

Concerning your manuscript with François, would you please let me know where it will appear. I wish to quote it in my paper for Israel; in fact, reference to this paper will make it possible to eliminate several sections that I had already started to put in.

In connection with your paper, there are a number of points of interest in our current work. We have evidence that the level of  $\beta$ -galactosidase formed in various *Shigellas* reflects different activities of a genetic region located in or near the operator. Recombinants between *Shigella* and *E. coli* near the *o* region often have intermediate levels of enzyme. Mel is going to test the enzyme produced by the parents and the hybrids. I would incriminate the operator itself, were it not that the permease level is unaffected by the *Shigella* "operator" region. In addition, we found that several of the *z*<sup>-</sup> strains (mostly yours) are low in permease, as you no doubt have noticed. The *y*<sup>-</sup> strains, on the other hand, seem to have full level of enzyme. It seems reasonable that there may be a segmental effect in the direction *o*→*z*-*y*.

Another matter of some interest is that the production of  $\beta$ -galactosidase is immediately stopped by infection with phage T6, whether the gene is in the chromosome, in the F factor, or in a newly-entered P1-lac phage. This shows that all DNA except that of T6 itself is destroyed, irrespective of location.

Finally, the question of the production of enzyme after transduction has apparently been solved in favor of the "abortive transduction" theory. This was done in a rather cute way involving double transduction. We are now finally writing this up, while doing some more attempts to count directly the cells that produce enzyme. I shall tell you more in Paris.

With best regards to you and all other friends,

Sincerely,

sel/na

S. E. Luria